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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,850	12/10/2003	Marvin L. Green	IN-5587	8857
80600 7590 03/20/2009 Harness, Dickey and Pierce, P.L.C. 5445 Corporate Drive Troy, MI 48098				
EXAMINER				
NILAND, PATRICK DENNIS				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
03/20/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/732,850

Applicant(s)

GREEN ET AL.

Examiner

Patrick D. Niland

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. The amendment of 12/22/08 has been entered. Claims 1-19 are pending.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 7-16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. Application Publication No. 2002/0155278 Boisseau et al. with "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", page 82 being cited as evidence.

Boisseau discloses coating compositions and coating methods falling within the scope of the instant claims at the abstract; sections [0019], [0022], [0026] which falls within the scope of the instant claims 12 and 14, [0038]-[0043] which falls within the scope of the instant claims 9-10, [0048] of which the oligomeric film formers fall within the scope of the instant claims as they are not polymeric since they are oligomeric and they can be further polymerized and are thus monomers, [0050] which falls within the scope of the instant claim 2, [0098], [0099], [0105] which falls within the scope of the instant claim 15; and the remainder of the document.

The applicant argues that the patentee requires the film former to be oligomeric or polymeric, not monomeric. The instant claims and the enabling specification do not exclude

oligomers, which are not polymers as is clear from the applicant's arguments relating to the prior 112 rejection, by recitation of "non-polymeric". The oligomers of the reference react further to give higher molecular weight polymer when cured and are therefore necessarily "macromonomers" as the term is well understood in the art and are thus "monomeric". The applicant continues to argue this issue adding that the prior art does not use the term "macromonomer" as this is the examiner's interpretation of "it appears nowhere in Boisseau..." No matter what Boisseau calls the item in question, it remains a macromonomer by its function/action in the disclosed compositions. A rose is a rose by any other name. This is clearly within the scope of "monomers". Claims are to be interpreted in their broadest reasonable scope as is axiomatic. That a macromonomer is a monomer is maintained for reasons of record and is not "an unreasonable contortion of "monomer" as used in the present application, Boisseau, and the art" because none excludes macromonomers from them and "macromonomers" are "monomers" as can easily be seen by the common occurrence of "monomer" in both terms. The applicant's arguments in this regard are not persuasive for these reasons and the other reasons of record for this issue.

Page 10, lines 4-5 of the applicant's specification states "Higher oligomer products are also possible, but not preferred." clearly indicating that the instantly claimed inventions encompass the "oligomers" of the prior art cited above. This appears to rebut the applicant's argument that their "coating composition is non-polymeric, unlike the polymeric and oligomeric coatings described in Applicant's background, page 2, paragraphs [0003] and [0004] and exemplified in the Boisseau publication."

In response to "112" rejections made in prior prosecution of this application, the applicant argued "Examples of monomeric materials are presented in the specification in paragraphs [0013] to [0027] and the U.S. patent references cited therein." It is again noted that paragraph [0020], page 10, lines 4-5 of the instant specification includes "oligomers" as the instantly claimed "monomers" which is contrary to the applicant's arguments in this regard. Thus, the examiner's position is that the "oligomers" of Boisseau et al. fall within the scope of the instant claim language, including "non-polymeric" and "monomeric material" based on the applicant's own definition of their invention at page 10, lines 4-5 of the instant specification. It is not seen that the applicant's cited definition of "oligomer" overcomes the instant specification recitation that "oligomers" are included as part of the instantly claimed invention. The applicant's cited definition of "monomer" also does not define over their specification's inclusion of oligomers as falling within the scope of the monomers being described at page 10, lines 4-5. The "oligomers" of Boisseau et al. are reacted with the reference's crosslinking agents to become "one or more constitutional units of" the crosslinked larger polymer molecule that results from the crosslinking reaction of Boisseau et al. and thus the "oligomers" of Boisseau et al. literally meet the applicant's cited definition of "monomer" not to mention the applicant's specification includes

oligomers as falling within the scope of the claimed invention at page 10, lines 4-5. Thus, the examiner's reference to "macromonomers" and his assertion that the oligomers of Boisseau et al. fall within the scope of the instant claims are clearly not contrary to the applicant's specification and the IUPAC definitions of these materials.

Furthermore, sections [0044]-[0046] et seq. of the instant specification include polymeric substances among the instantly claimed "monomeric materials" and "non-polymeric coating compositions" as being within the scope of the instantly claimed invention, since this compound is based on a "polyester". In fact, many of the disclosed "monomeric material having a plurality of active hydrogen groups" are also oligomeric or polymeric. Therefore, the applicant's disclosure clearly includes Boisseau et al.'s oligomers within the scope of the instantly claimed invention.

Claim 16 is open to the additional things of the prior art due to the initial use of "comprising".

The applicant's arguments regarding the reference disclosing oligomeric or polymeric, not monomeric, compounds having a plurality of active hydrogen groups is addressed above, particularly regarding the definition of "macromonomer", which is not rebutted by the applicant.

"Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", page 82 defines "macromonomer" as "a polymer that contains reactive groups". It is thus clear that the prior art macromonomer falls within the scope of this definition and therefore falls within the scope of the instantly claimed "monomer" due to the root of the above defined "macromonomer".

The applicant's arguments have been fully considered but are not persuasive for the above reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08.

For the above stated reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08, **this rejection is maintained.**

5. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. Application Publication No. 2002/0155278 Boisseau et al. in view of US Pat. No. 5872195 Green et al. and US Pat. No. 5756213 Ohrbom et al. with "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", page 82 being cited as evidence.

Boisseau et al. discloses coating compositions and coating methods falling within the scope of the instant claims at the abstract; sections [0019], [0022], [0026] which falls within the scope of the instant claims 12 and 14, [0038]-[0043] which falls within the scope of the instant claims 9-10, [0048] of which the oligomeric film formers fall within the scope of the instant claims as they are not polymeric since they are oligomeric and they can be further polymerized and are thus monomers, [0050] which falls within the scope of the instant claim 2, [0098],

[0099], [0105 which falls within the scope of the instant claim 15; and the remainder of the document.

Boisseau et al. does not disclose the instantly claimed monomers of claims 4-6.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed monomers of claims 4-6 as the film forming agent of Boisseau et al. because Boisseau et al. encompasses such film formers at sections [0048] through [0098] and Ohrbom, columns 2 through 8, which falls within the scope of the instant claims 5-6, and the ordinary skilled artisan would have expected the benefits of these film formers as taught by Green (abstract) of which compound c falls within the scope of the instant claim 4, combined with the benefits of the urea compounds of Boisseau et al..

The applicant argues that the patentees require the film formers to be oligomeric or polymeric, not monomeric. The instant claims and the enabling specification do not exclude oligomers, which are not polymers as is clear from the applicant's arguments relating to the prior 112 rejection, by recitation of "non-polymeric". The oligomers of the references react further to give higher molecular weight polymer when cured and are therefore necessarily "macromonomers" prior to curing as the term is well understood in the art and are thus "monomeric". The applicant continues to argue this issue adding that the prior art does not use the term "macromonomer" as this is the examiner's interpretation of "it appears nowhere in Boisseau..." No matter what Boisseau calls the item in question, it remains a macromonomer by its function/action in the disclosed compositions. A rose is a rose by any other name. This is clearly within the scope of "monomers". Claims are to be interpreted in their broadest reasonable scope as is axiomatic. That a macromonomer is a monomer is maintained for reasons

of record and is not "an unreasonable contortion of "monomer" as used in the present application, Boisseau, and the art" because none excludes macromonomers from them and "macromonomers" are "monomers" as can easily be seen by the common occurrence of "monomer" in both terms. The applicant's arguments in this regard are not persuasive for these reasons and the other reasons of record for this issue.

The above arguments regarding the "oligomeric" active hydrogen containing compounds of Boisseau et al. falling within the scope of the instantly claimed "monomeric materials" and "non-polymeric" of the instant claims is again repeated and applied to the secondary references in view of the applicant's disclosure which explicitly includes "oligomers" and uses "polymers" in its examples.

Applicant's belief that the array of cited compounds of Ohrbom do not include lactone or hydroxyl carboxylic acid is not persuasive regarding claim 4 which does not require these compounds and ignores the relevant sections of the cited parts of the Ohrbom et al. patent that does have these compounds such as column 6, lines 47 et seq. and column 7, lines 31 et seq.

The appropriate rationale and motivation to combine the references is given above, particularly since Boisseau et al. broadly encompasses such compounds. There is no unexpected result for the components of claims 4-6. These compounds of Ohrbom and Green will have the same functional groups as those of Boisseau et al. and are therefore expected to have the resistance to sag. No evidence to the contrary is seen.

Claim 16 is open to the additional things of the prior art due to the initial use of "comprising".

"Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", page 82 defines "macromonomer" as "a polymer that contains reactive groups". It is thus clear that the prior art macromonomer falls within the scope of this definition and therefore falls within the scope of the instantly claimed "monomer" due to the root of the above defined "macromonomer".

The applicant's arguments have been fully considered but are not persuasive for the above reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08.

There is no showing of unexpected results stemming from the differences between the above cited prior art and the instant claims that is commensurate in scope with the instant claims and the cited prior art, particularly all of the parameters which materially affect composition properties that are not specified in the instant claims and the cited prior art.

For the above stated reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08, this rejection is maintained.

6. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. Application Publication No. 20020119253 Ohrbom et al. in combination with US Pat. Application Publication No. 2002/0155278 Boisseau et al..

Ohrbom et al. discloses a thermosetting coating composition containing the instantly claimed monomeric material of the instant claims, including claims 4-6 and 17-19 at sections [0014]-[0016], [0019], [0021]-[0022], [0026]-[0028], and most particularly the formulae of section [0042]-[0043], which are the monomers of the instant claims, including new claims 17-19, and a

crosslinker at sections [0044]-[0061], the optional oligomer at sections [0062]-[0079], the functionalities and reactions of these compounds necessarily giving thermosetting. The disclosure of Ohrbom et al. meets the instant claims 2-8, 13, and 15-19 except for the use of the instantly claimed crystalline reaction product of an amine and an isocyanate. See the remainder of the document.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed crystalline reaction product of an amine and an isocyanate in the coatings discussed above of Ohrbom et al. that otherwise fall within the scope of the instant claims because they are encompassed by the typical additives of section [0139] of Ohrbom et al. and they would have been expected to give the antisag properties described by Boisseau et al. due to the similarities between the components of Boisseau et al. and Ohrbom et al. such that the same bonds, including hydrogen, van der Waals, ionic, and covalent, that give the thickening that leads to the antisagging and other properties attributed to the crystalline reaction product of an amine and an isocyanate rheology control agent of Boisseau et al. would have been expected in the compositions of Ohrbom et al. also along with the accompanying rheology control. The crosslinkers of Ohrbom could react with these ureas for the same reason that they can react with the urea and carbamate functional components of Ohrbom et al. which meets the instant claim 3. It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed silicas of the instant claims 12 and 14 in the coatings of Ohrbom et al. because they are encompassed by section [0139], particularly the fillers of Ohrbom et al., the use of fumed silica is exemplified by Ohrbom et al.

at section [0161], Table 6, and its use in the above discussed compositions would have been expected to give its typical properties to the above discussed coating compositions.

There is no showing of unexpected results stemming from the differences between Ohrborn et al. and the instant claims that is commensurate in scope with the instant claims and the cited prior art, particularly all of the parameters which materially affect composition properties that are not specified in the instant claims and the cited prior art.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Patrick D Niland/
Primary Examiner
Art Unit 1796